National Park Service

Geologic Resources Division

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NPS Soil Resources Inventory Update

Susan Southard, NRCS-NPS Liaison, NRCS Davis, CA

Big Bend National Park

- Soil mapping is part of the DOI Natural Resource Challenge – it's a one time deal
- Funding ~$2.5 - 3.0 Million/year for new mapping.
- 32 park projects in 10 states

National Level

Acres to be mapped	84.5 Million
Parks to be mapped	270
Acres mapped thru FY07	24.5 Million (29%)
Parks mapped thru FY07	140 (52%)
Alaska Acres	54 Million (64%)
Alaska Parks	16 (6%)

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NCSS South Region Status

Parks to be mapped	62 (23% of total)
Acres to be mapped	5.2 million (6% of total)

Parks completed thru FY07	47 (76%)
Acres mapped thru FY07 (18%)	945,006

Current Interagency Agreements with NRCS in South Region

4 States (TX, TN-NC, TN-KY)

4 Parks

- Big Bend National Park, TX
- Guadalupe Mountains National Park, TX
- Great Smoky Mountains National Park, TN and NC
- Big South Fork National Recreation Area, TN-KY

1.5 million acres

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Florida

Has largest amount of Parks/Acres not mapped in South

4 Park Units

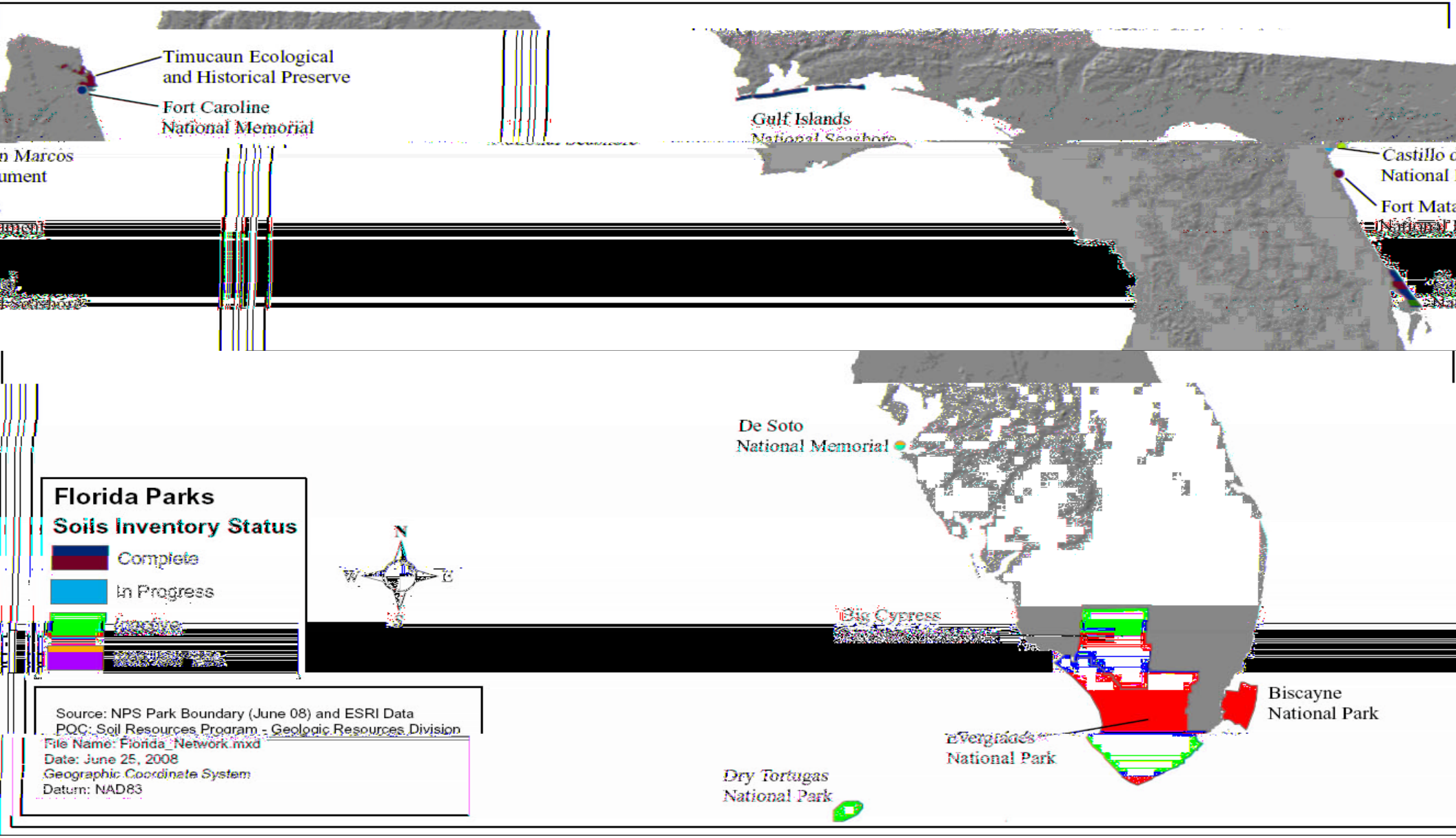
- **Big Cypress National Preserve**
- **Biscayne National Park**
- **Dry Tortugas National Park**
- **Everglades National Park**

2.47 Million Acres

Discussions underway to initiate mapping pending available funding from NPS in FY10

I&M Soil Resources Inventory
Florida I&M Park Status

National Park Service
U.S. Department of the Interior



Fort Jefferson, Dry Tortugas National Park

Only 8 acres of land in a 64,701 acre Park

Future Activities in South Region

Working with Kentucky and MO 18

Mammoth Cave National Park and Cumberland Gap National Historic Site as a new non-MLRA Soil Survey Areas to meet NPS needs

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Immediate Liaison Tasks

Analysis of 43 multi-state/multi-county parks for SRI staff (same symbols w/ different data etc) clipped from numerous SSURGO datasets

Overlap lists for all 43 parks (SC, GA, VA)

NPS SSURGO template with custom reports and "hidden" ACCESS interp queries

NPS "group" in NASIS (NSSC) with reports, queries, rules

Scoping sessions, field weeks, status reports (BLUE, GARI, NERI, BADL, BIBE, LAVO)

-Regional and National meetings (WV, KY, RI, FL) to get the word out

-Soils training for NPS staff

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NPS Soil Resource Inventory Staff

Pete Biggam - Soils Program Manager

Judy Daniels - Data Manager

Branon Barrett – GIS Specialist

Troy Kashon – GIS Specialist

Sue Southard – NRCS/NPS Liaison

Part of liaison's role is to help parks understand soils….

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Our Goal……

Promoting the use of soils information in NPS decision making and making it accessible in a user friendly way to staff and partners.

The SRI is currently developing an ArcGIS Desktop toolset that will geospatially link soils data allowing users to access soils data in an interactive manner. The current focus is on the map unit descriptions, pedon point data, and ecological site descriptions. The current toolset includes a MapUnit Identify Tool and a Pedon Identify Tool.

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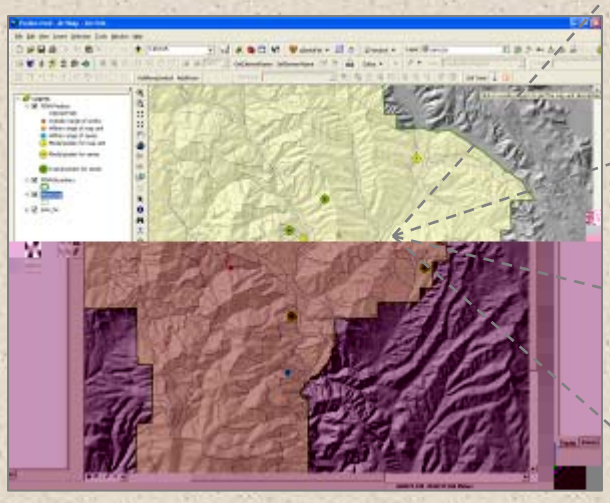
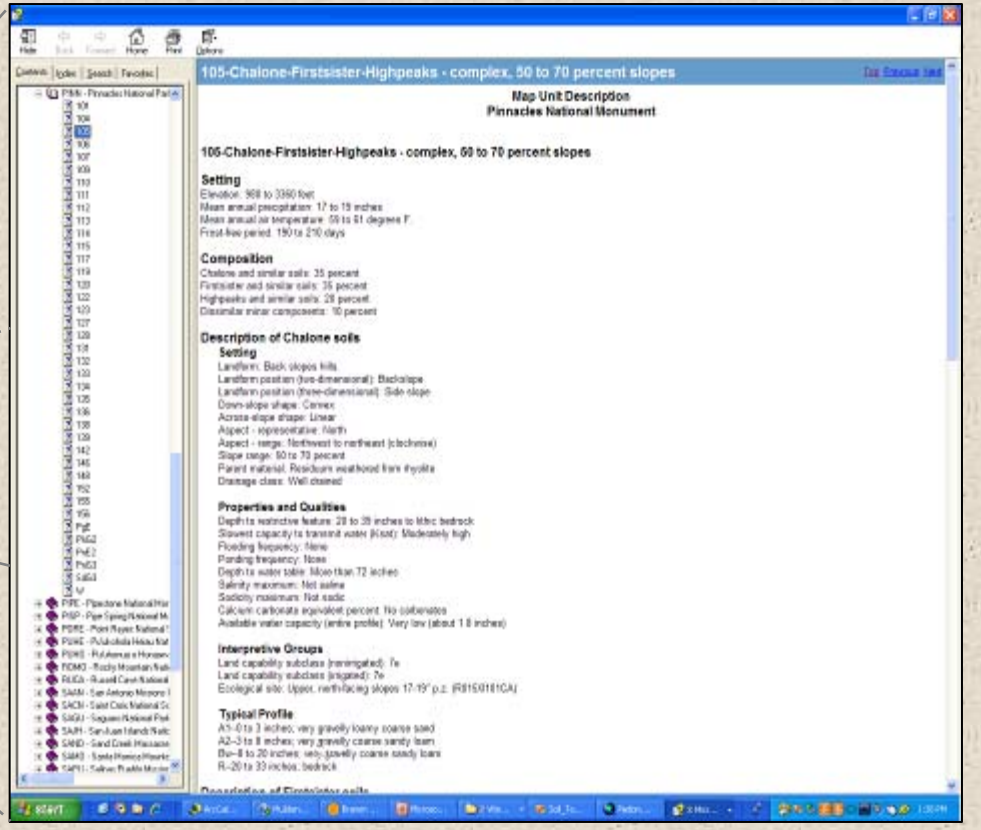
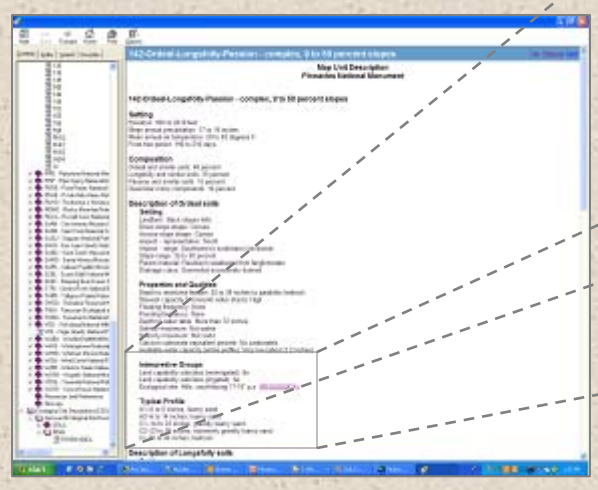
The MapUnit Identify Tool can be used on any I&M park that has been completed by the SRI. To use the tool the user simply selects a soils layer in the ArcMap table of contents, clicks a polygon of that layer, and an associated help file containing that map unit's description is opened.





From the map unit description, ecological site descriptions can be accessed via a hyperlink in the help file if there is a NRCS approved ESD Report for that map unit.



Interpretive Groups

Land capability subclass (nonirrigated): 6e

Land capability subclass (irrigated): 6e

R015XI100CA

Typical Profile

ny sand
A1--0 to 6 inches; loan

my sand
A2--6 to 14 inches; loa

ravelly loamy sand
C1--14 to 23 inches; gr

xtremely gravelly loamy sand
C2--23 to 36 inches; ex

edrock
Cr--36 to 40 inches; be

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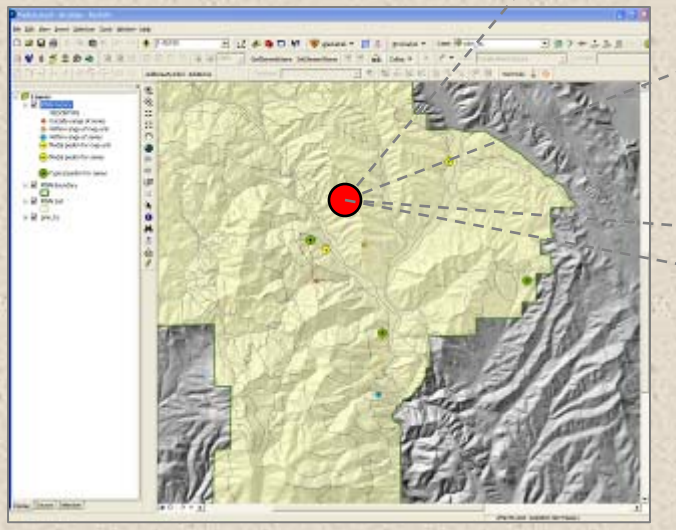
The Pedon Identify Tool is currently in the early development stages. The concept is similar to the MapUnit Identify Tool in that a help file will be called when the user makes a selection by clicking a point in a selected layer. This will allow for more site specific information to be accessed by the user.



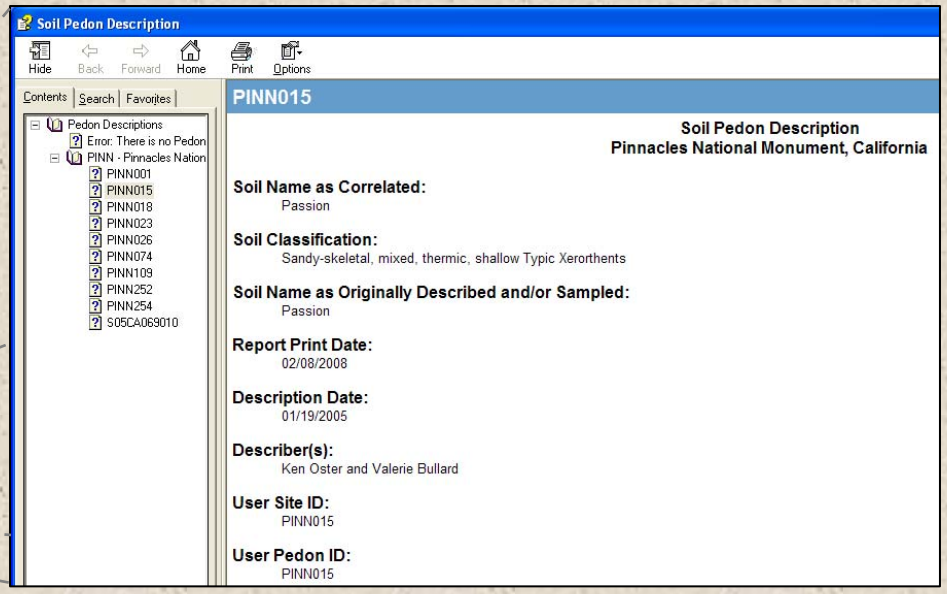
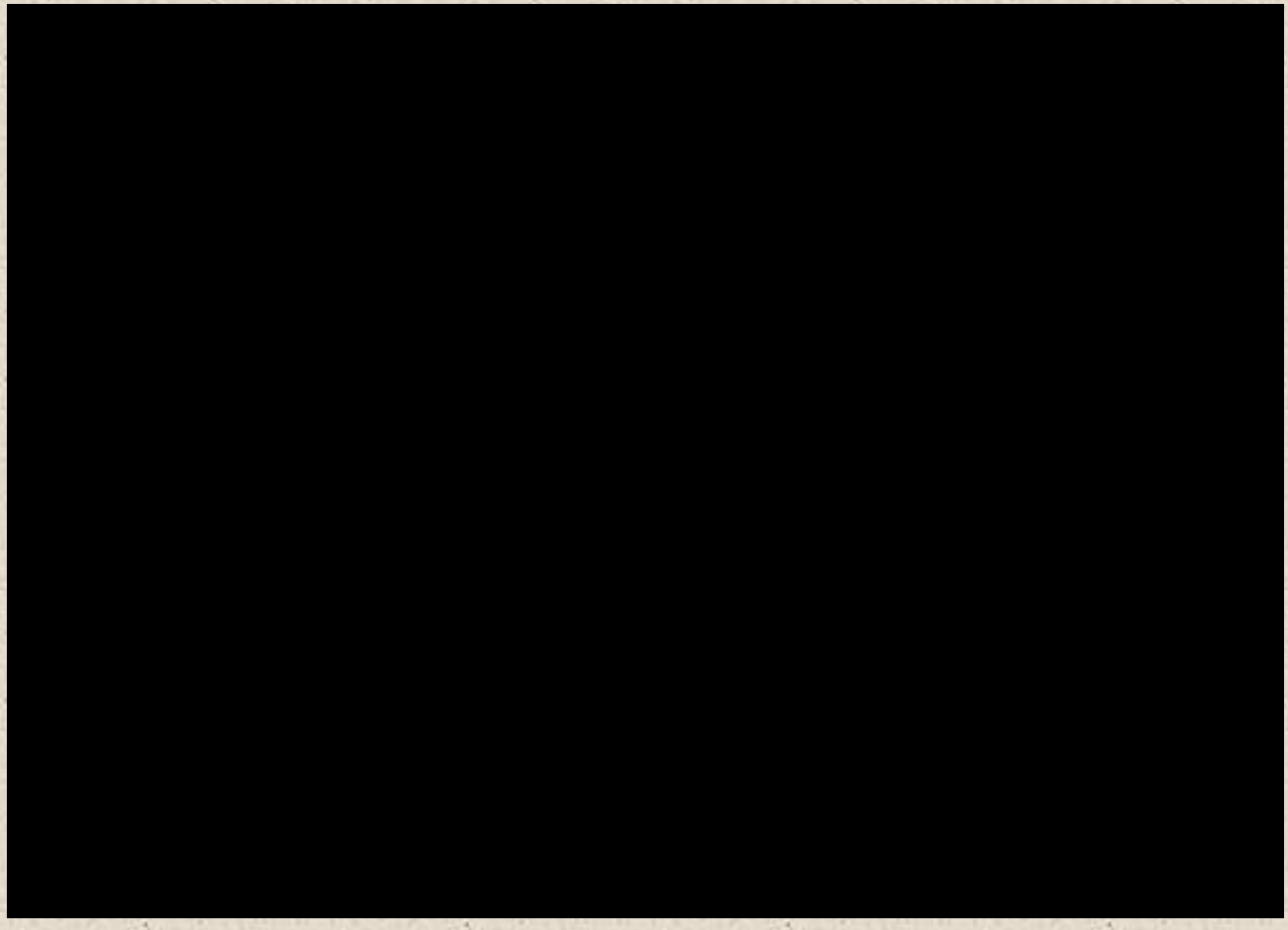


Photo Documenting Map Units



Use of Geospatial Tools and Map Units

What's Cool About Our Park Soils?

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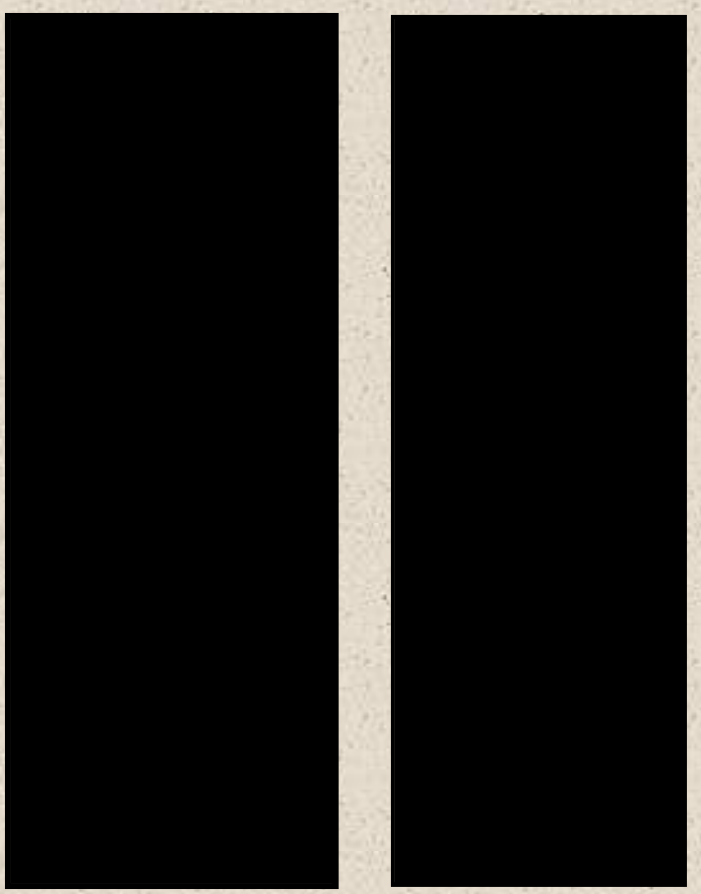
- Series Type Locations – accurately populated in NASIS pedon
- Special properties – tephra layers, horizons from historic floods, rare plants
- Endemic Soils - Unique to park – mapped nowhere else …a park story to tell !
- Benchmarks – what an opportunity to preserve a site!
- Soil Monoliths – for visitor center display



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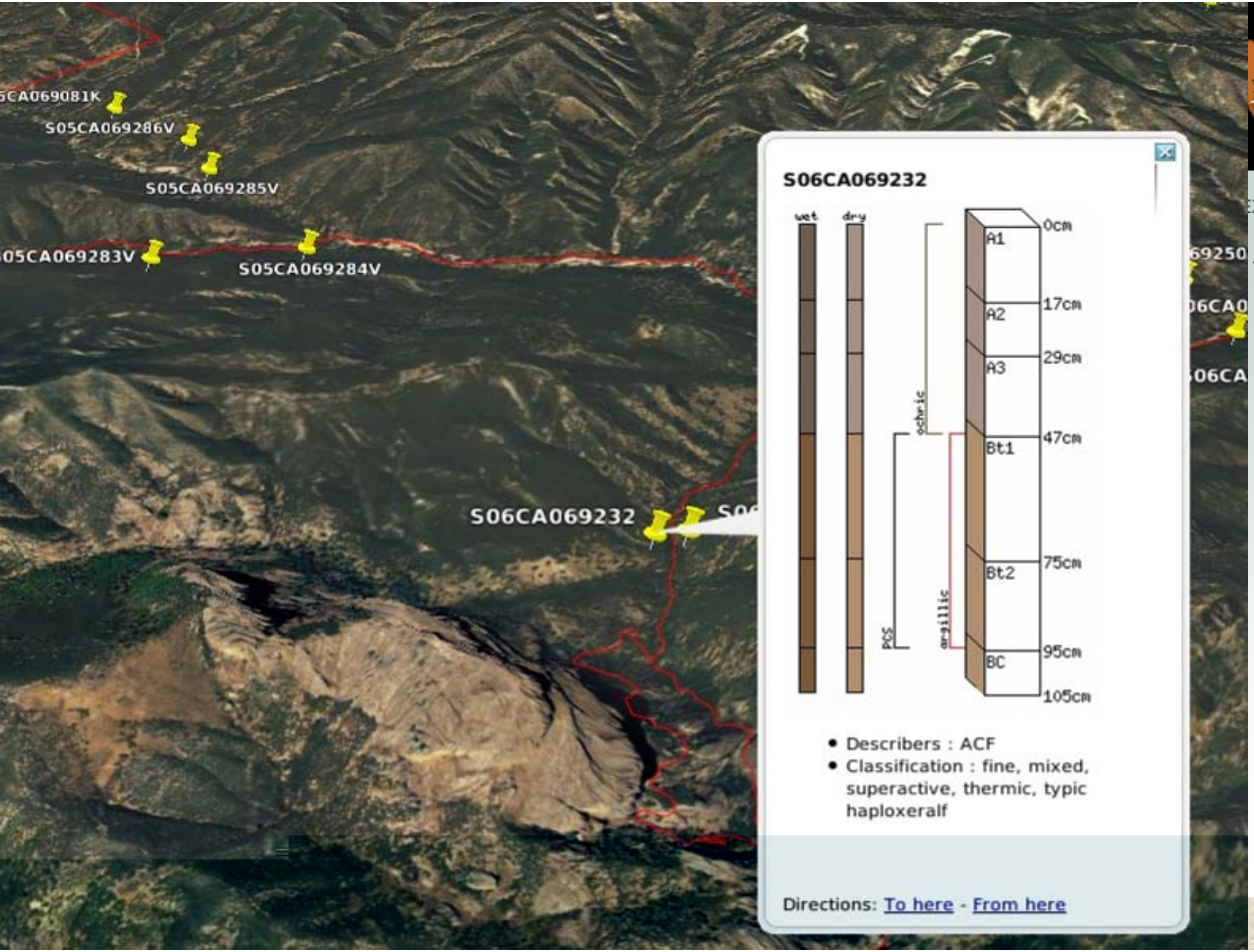
Soil Monoliths



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